50X1-HUM

INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

		C-O-N-F-I-D-H-	N-T-I-A-L		EOVA LILIK
			-		50X1-HUN
COUNTRY	North Korea		REPORT		
UBJECT	The North Korean Ai	ir Force	DATE DISTR.	29 March	1961
			NO. PAGES	1	
			REFERENCES	RD	
ATE OF					50X1-HUM
NFO.					3021-11010
ATE ACQ.	S UNEVALUATED INFORMATI	ION. SOURCE GRADINGS	S ARE DEFINITIVE. APPRAI	SAL OF CONTENT IS	TENTATIVE.
				50 X 1	-HIIM
				50X1	-HUM
				50X1	-HUM
				50X1	-HUM
				50 X 1	-HUM
				50X1	-HUM
				50X1	-ним
			*	50 X 1	-HUM
		·	•	50X1	-HUM
			£	50X1	-HUM
			-N-T-I-A-L	50X1	-HUM
			3-N-T-I-A-L	50X1	C (
· · · · · · · · · · · · · · · · · · ·			3-N-T-I-A-L	50X1	50X1-HUM
			-N-T-I-A-L		-HUM 50X1-HUM
STATE	X ARMY X NAVY	X AIR 3	N-T-I-A-L	50X1	50X1-HUM

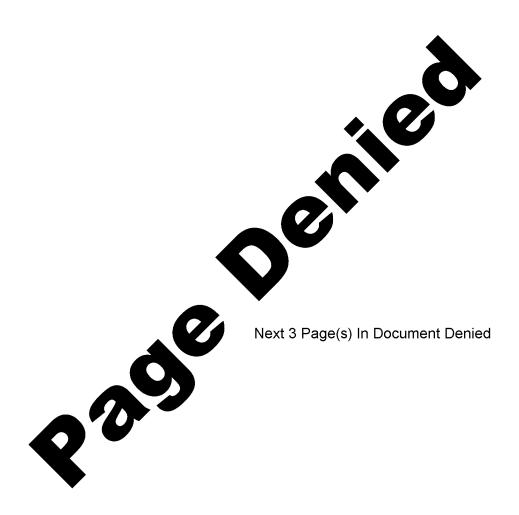
Sanitized Copy Approved for Release 2011/10/17 : CIA-RDP80	T00246A058300040001-0	50X1-HUN
CONFIDENTIAL		

Subject: Suspension of Flights in Bad Weather and for Other Reasons:

Suspension of flights were made by the order of the commander of the AK Air force who stopped flights of all planes when there were flying accidents or unfavorable weather conditions.

- 1. Suspension of Flights for Flying Accidents: When a flying accident in any flying unit, NKPA, was reported, the Commander of the Air Force ordered a general suspension of all flying activities to find out the cause of such accident and to check all airplanes to see about co-related facts with the plane in trouble. The ban was lifted only after everything became clear. Therefore, the period of suspension lasted three to four days and even as much as ten days. The frequency of suspensions depended on the number of accidents but the suspension orders were given on three or four occasions annually.
- 2. Temporary Suspension Due to Bad Weather: The suspension was made in various localities due to the particular weather conditions and the commander of each flying regiment had the sole power to give orders for suspension. For example, at Wonsen Airfield all planes stopped flying during the rainy season in the summer and heavy snowfall in the winter the number of days of suspension being about 30 days a year. The snow-sweeping operations were performed by the labor of the personnel at each air base in NK where they spent two days in sweeping snow 50 centimeters deep. The heavy snowfall in NA caused absolute stoppage of flights of all planes which was considered a fatal blow to military operations.





Tactics of Enemy Air Force

50X1-HUM

1. Outline

Aircraft equipment of the Nort Korean Air Force (NKAF) has been replaced by MIG-15 BIS's, MIG-17's, and MID-17 PF's, all jet planes more advanced than plain MIG-15, and it will very probably have MIG-19's This trend is part of the effort for superiority in the three basic elements of air battle, namely, capacity for ascending to ultra-high altitude, capacity for high speed flight, turning capacity and all-weather flight. The changes in equipment naturally have resulted in changes of tactics and new tactics for jet aircraft adopted after the Korean Armistice and these changes include attack on bombers carrying nuclear weapons, attack over the sea, and	50X	1-HUM
nighttime interception. Changes must have also resulted in daytime air tactics NKAF tactics are primarily based on Soviet air battle tactics but have been partly modified by pilots who participated in the Korean War and each air force division is developing its own tactics, thus the tactics vary slightly according to the division.		1-HUM -HUM

2. Defensive Tactics:

- A. Defense Area: Upon approval of the operations plan of the Af Headquarters by the Operations Bureau of the Ministry of National Defense each Af regiment is notified of its defense area. Inspection for judging the defense plan of each unit is conducted once a year by the Af Headquarters and once every two to three years by the Ministry of National Defense as part of its all-service inspection. The defense area may be revised when felt necessary as a result of the inspections. The sir defense area of the 2nd Pursuiter Division stationed at the Wonsan Airfield on the Kalma Peninsula was as follows:
 - 1) Combat Area with Wonsen Airfield as Its Center:

East Northeast $39^{\circ}N = 130^{\circ}E$ (sea) Tanch on (BV 9080)

- 2 -

Northwest	Nangnim-san (?)
Southwest	Koksan (BT 9592)
South	Ich'on (CT 2060)
South	Aungnung (?)
North	Chasong, Chagang-do (?)
North	Hyesan, Hamgyong-bukto (?)

2) Encounter & Disengagement Boundaries:

The encounter and disengagement boundaries are both fixed, as a rule, at more than 135 kilometers from the Wonsan Airfield but, in reality, the distance varies slightly according to direction.

a. First Resistance (area from the south to the northeast) Encounter Boundary:

Ch'unch'on - Inje - Kansong - Tanch'on (Hamgyong-namdo)

Disengagement Boundary:

Sep'o-ri - Chasan-ni - Hunggyong-ni (Hamgyong-do)

b. Second Resistance (southern and northern areas) Encounter Bourdary:

Kumhwa - Kumgang - Pukch ong

Disengagement Boundary:

Poptong-ni - Changjin

c. Third Resistance (case of continual attacks of enemy planes)
Encounter Boundary:

Hoengsong - Kangnung - 39°E/130°N

Disengagement Boundary:

Hwach on-ni - Ch'odo-ri - Tanch on (Hamgyong-namdo)

B. Defense Against Enemy Planes Outside Combat Area:

As a rule, when there are signs of enemy planes crossing the DMZ alert planes of the day at each airfield are to take off immediately and intercept them by ground control over the vicinity of the DMZ. Since, due to the geographical conditions, failure of interception over the vicinity of the DMZ means exposure of nucleus North Korean military bases to enemy attacks and air bases being bottled up without a chance for a second stage interception, interception over the vicinity of the DMZ is strongly emphasized.

During hostilities, however, when locations of friendly and enemy air
bases are changed, the second stage interception outside the combat area
is possible if the first interception fails. There is a fixed minimum
distance of pursuit from the combat area boundary, but it is unknown. 50X1-HUN
Because of the present geographical conditions, the combat area of each
AF regiment extends to the air space over the vicinity of, or beyond, the
OMZ.

C. Defense When Airfields Are Bottled UP:

As was mentioned above, the failure in the first stage interdeption means airfields being bottled up because of the present disposition of bases. When airfields are bottled up,

- 1) All aircraft which can quickly take off and participate in battle are to take off. But the commander is authorized to decide whether or not to mobilize all aircraft in view of the conditions of enemy planes and the conditions of concealment of friendly aircraft.
- Aircraft taking off under such a condition are to fly horizontally keeping the lowest possible altitude until they attain the speed of 700 to 800 kilometers per hour. (It is tactically advantageous to attain the highest possible speed, and for a MIG-15 BIS it takes one minute to attain this speed.) When they attain this speed they are to turn to the right or left suddenly in consideration of their position as well as the pursuit of enemy planes and go into air battle. The plane following the first one in taking off will also fly horizontally until it attains the speed but if and when the first one is being pursued the second one will bring the nose slightly upward and attack the enemy planes while gaining speed.

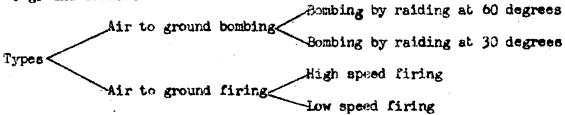
D. Defense Against Bombers:

In the case of B or C mentioned above, the situation means attack by enemy planes. Since this is expected to be done by a group of enemy planes, friendly planes can take off immediately after enemy planes are located by radar and intercept enemy planes outside or on the outskirts of the combat area. This will also be possible against enemy bombers. As a defensive measure against bombers it is emphasized that they should by all means be shot down. For a formation of bombers which is considered as meaning a potential atom bomb attack, every possible means (including collision tactics) will be used to bring them down. Collision tactics are not officially recommended by the RKAF authorities but were

adopted by some pilots on their own initiative at their debates on tactics and publicized throughout the whole NKAF with exaggerated praise so that other pilots might also come to resolve to adopt these tactics because of their love of fame.

- 3. Offensive Tactics: Offen ve tactics can be divided into air to ground attack, attack over the sea, and air bombing by bombers with fighter covering. The smallest tactical unit is a two plane formation but the basic formation is of four planes. Unlike air battle tactics the attacking power of a formation goes in proportion to its size.
 - A. Air to Ground Attack by Fighters:

Of the offensive tactics air to ground attack is most emphasized. In order to gain a superior position for the friendly ground force, joint operations are performed by cutting a way for the ground force by air to ground attack.



1) Air To Ground Combing:

Air to ground bombing means air bombing by fighter planes. Sombs used by fighter planes are a mine bomb called "fab" and an explosive bomb called "ofab". These bombs can be carried by MIG-15 BIS's or MIG-17's. They can be carried also by MIG-17 PP's, but since MIG-17 PF's are designed only for air battle, usually they do not carry these bombs. The types of fuses for these bombs are unknown. The speed and bombing altitude at the time of raiding at 30 degrees and 60 degrees differ as follows:

a. Raiding at 60 degrees:

Raiding speed: 350 kilometers per hour

Raiding altitude: 3,500 meters Bombing altitude: 1,450 meters

Escape altitude: 800 - 10,000 meters

Escape speed: 700 - 800 kilometers per hour

b. Raiding at 30 degrees:

Raiding speed: 350 - 400 kilometers per hour

Raiding altitude: 2,000 meters

- 5 CONFIDENTIAL

Bombing altitude: 1,200 meters Escape altitude: 800 meters

Escape speed: 700 kilometers per hour

Escape altitude must be maintained at more than 800 meters due to explosion of the bombs. MIG-15 BIS's and MIG-17's must attempt to escape immediately from the bombing altitudes with their maximum mobility in order to maintain at least an 800 meter altitude. (See Sketch Attachment Air to Ground combing.)

50X1-HUM

2) Air to Ground Firing:

Air to ground firing means firing at ground targets by one 23-millimeter machinegum carried by MIG-15 BIS or MIG-17 (MIG-17 PF can also carry the machinegum, but it is not used for air to ground attack). Air to ground firing is divided into high speed firing and low speed firing.

a. High speed firing (used chiefly for real battles):

Raiding speed: 600 - 700 kilometers per hour

Raiding angle: 15 degrees
Raiding altitude: 1,200 meters
Shooting range: 800 meters
Escape altitude: 80 - 100 meters

b. Low speed firing (used chiefly for training):

Raiding speed: 350 - 400 kilometers per hour

Raiding angle: 30 degrees
Raiding altitude: 1,000 meters
Shooting range: 800 meters
Escape altitude: 80 - 100 meters

Escape speed is influenced by raiding angle, speed, and altitude, but must be at least 500 to 600 kilometers per hour.

The targets of the air to ground bombing or air to ground firing by fighters are air bases, military force concentration points, vehicles including trains, automobiles, tanks, etc., bridges, artillery positions, and war goods concentration points. Of these targets military force concentration points and air bases are basic targets.

Against stripe shape targets such as a train of automobiles, railroad trains, airfields, etc., a 15 degree raiding angle is used. A fifteen degree raiding angle allows greater shooting area on the target. For an attack on an anti-aircraft artillery position, low altitude raiding is performed from three directions. (See Sketch of Air to Ground Firing, and

50X1-HUM

of Attack on Anti-Aircraft Artillery Position.

50X1-HUM

CONFIDENTIAL

50X1-HUM

B. Attack Over The Sea:

Methods of attack over the sea in which the NKAF were trained since completion of war preparations are divided into diving at 30 degrees or 60 degrees and ultra-low altitude (10 - 100 meters) horizontal raiding.

ultra-low altitude horizontal raiding methods were adopted. At fighter regiments of the NKFA emphasis is placed on attack over the sea as well as air battle tactics. Types of planes used are MIG-15 BIS and MIG-17, and the type of firearm used is only the mine bomb. Each of these types of planes is to use either two 100 kilogram mine bombs or two 250 kilogram mine bombs at a time and is to disentage after one time of attack. The attack over the sea described above means chiefly attack on combat ships and boats. At times machinegun firing is also used at the time of air bombing by diving, but its main purpose is always psychological.

1) Diving:

Paragraph 2 and Sketch of Air to Gro Sombing.)	unc
all AF regiments under the command of the 2nd Divisi	00
could be considered as proficient in diving methods which were	50X1-HL
similar to air to ground bombing. (See	
Sketch of Attack Over the Sea.)	
Ultra-low Altitude Horizontal Raiding:	50X1-H
Discussion of ultra-low altitude horizontal raiding	
by the NKAF. It was originated in the Soviet Union but whe	
it was used in actual battles is unknown.	A
suggested only the possibility of its application in the course	of 50X1-F
A A S	
tactics research	
is assumed to be under way.	inoti

are: 1) to be able to avoid severe anti-aircraft fire of the target; 2) hitting rate is almost 80 percent for the shortness of shooting range. Since the NKAF concluded that this method is tactically advantageous there is a strong possibility of its utilization in

future hostilities. (See

Over the Sea.)

50X1-HUM

50X1-HUM

Sketch of Attach

C. Air Bombing Tactics of Bombers:

Air bombing tactics of bombers are unknown. See the following paragraph for fighters covering formations of bombers. Bombers which the NKAF can mobilize are IL-28%, light jet planes belonging to the 36th Bomber. Regiment, but see the separate report on NKAF regiments and their combut capacity for the degree of its training in operation of the bombers.

4. Air Battle Tactics:

A. Formations:

The NKAF uses the Soviet system of plane formation. The shape of formation is called in NK "order of battle". The space between planes reduced or extended in consideration of pilots capacity by the discretion of the regiment commander. Types of formations used by the NKAF are:

Wedge shape, Echelon shape, Straight line shape, Column shape.

Two planes are the basic formation which is considered as the minimum unit of combat fire ecoperation.

formations are also classified by closeness of deployment into close order of battle (close formation) and sparse order of battle (sparse formation). Although this classification is based on the differences in space and altitude between planes the same shapes of formation are retained. The sparse order of battle is used during air battle, while the close order of battle is used on the way to or from the area of air battle.

uple Basic Formation (See Sketo

50X1-HUM

Couple basic formation consists of two planes: one leading plane (leader plane) going ahead and the other file plane (led plane) following behind. The file plane will fly at the right or left rear of the leading plane at a slightly lower altitude than the leading plane, maintaining a fixed space and altitude. Couple formation can be straight line formation, or echelon formation, or column formation, but usually echelon formation is used.

2) Wedge (V) Shape Formation (See Sketch

50X1-HUM

Wedge shape formation, the basic formation, consists of four planes as a basic combat unit. It is used chiefly for air battle. In this formation the formation leader plane comes at the head, and the three other planes come at the rear of the leader plane at gradually lower

-8-

CONFIDENTIAL

50X1-HUM

	altitudes. The led couple may come on the right or left side of th leading couple.	•
3)	Echelon Formation (See Sketch	50X1-HUM
	Echelon formation also consists of four planes. Like the wedge shall formation it is used chiefly for air battle. In this formation the formation leader plane comes at the head and file planes are deploy at the right or left side rear. When the file planes came at the left side rear the formation is called a left side echelon formation and when they came at the right side rear the formation is called a right side echelon formation. In this formation too, the leader plane maintains the highest altitude.	ed.
4)	Straight Line Formation (See Sketch	50X1-HUM
	Straight line formation consists of two to four planes. The formatileader plane may come either to the right or left side. Although it is called straight line formation, the position of the next plane toward the front plane may be 15 degrees or less (when the angle is larger than 15 degrees the formation is called echelon formation). The leader plane comes at the highest altitude, and file planes comes at the gradually lower altitudes. This formation is used for air reconnaissance only because it allows wider field of vision, but is never used for real air battle.	t
5)	Column Shape Formation (See Sketch	50X1-HUM
	Column shape formation is used for continuous assault on bombers. Since this formation is formed suddenly for tactical needs of fighter planes, it cannot but be a sparse formation. This formation can be formed from any of wedge shape formation, echelon formation, and others whenever continuous assault is necessary, and so it can hardly be called a formation.	ı
6)	Battalion Formations (See Sketch	50X1-HUM
	In modern air battles company formation (four planes) and battalion formation (12 planes) are most commonly used. In echelon shape battalion formation each company will be either in echelon shape or wedge shape. In wedge shape and column shape battalion formation each company will be in wedge shape formation. In battalion formation the first formation (first company) will come at the lowest altitude and the second and the third formations (second and third company) will come at the gradually higher altitudes.	ons ,
7)	Regiment Formations:	
	In regiment formations the constituent units are divided into advance	•
	<u> </u>	EOVA LILINA

team, covering team, etc., but the details of its deployment are unknown. The regiment formation consists of 24 planes.

B. Air Battle Tactics:

As the capacity of aircraft develops the NKAF emphasizes dynamic surprise attack. In air battle when one engagement fails to shoot down the enemy plane it becomes very difficult to have another chance to attack because of the larger radius of the turning of the aircraft. Therefore, efforts are concentrated on attaining 100 percent hitting rate.

1) One Bomber v. One Pursuiter:

Due to the high speed of modern bumbers a pursuiter is required to meet the following two prerequisites:

To maintain 1,000 meters higher altitude than a target bomber;

Not to get within 1/4, the shooting range of bombers.

When the above two prerequisites are met, a fighter plane will attack its target bomber from above, or when its proper altitude is not maintained, attack from a side. But attack from a side will take the fighter within the shooting range of the bomber and so it is avoided as much as possible. Attack from above is also avoided as much as possible over the sea, because altitude estimation over the sea is difficult, and there is the danger of plunging inn into the water after an attack. A single bomber may be attacked by a single pursuiter from above, from a side, or from below.

8.	Attack from Above (See Sketch	50X1-HUM
	Attack from above is one of the techniques of attacking a single bomber by a single pursuiter emphasized by the NKAP. Its merit are: i) the time is reduced because the pursuiter gains additispeed from descending; ii) allows wider area for shooting; iii) enables it to avoid entering the shooting range of the bomber (most high efficiency bombers have firearms only at the tail). Its demerits are: i) the time for siming is reduced due to the high speed; ii) the pursuiter easily reaches its maximum speed, and when it does, it becomes difficult to control the control stick.	3
b _o	Attack from Side (See Sketch	50X1-HUM

Attack from a side is used for a low speed bomber or a bomber flying over the sea. Its demerits are: i) requires it to get within the shooting range of the bomber; ii) a high speed bomber requires a sharp turning for the pursuiter, and when it turns sharply,

= 10 =	
CONFIDENTIAL	

the pilot gets strong "G". But its merits are: i) allows longer time for aiming since the pursuiter gets into a tailing position; ii) with a low speed bomber the time exposed to fire is reduced for its high speed escape. In any case the vital weak point of this method is to pursue within the shooting range, and therefore, the pursuiter must aim at its target on an outer margin of the shooting range and escape to the outside of the range immediately.

c. Attack from Below:

Attack from below is used as a desperate means when the abovementioned two attacking positions cannot be attained. In reality it is almost unused nor is it considered as a regular tactic by the NKAF. While it is advantageous because a bomber will seldom expect an attack from below, it causes the sense of loss of posture or spinning to the pilot for strong floating load.

2) Duel of Pursuiters:

The chance of a duel of pursuiters is rare in modern air battles but all types of tactics (formations) for pursuiter-v.-pursuiter air battles are based on the tactics for duel of pursuiters. Air battles between pursuiters are divided into horizontal air battle and vertical air battle. There are several tactics which are described below but all of them aim at the two basic elements of air battle, namely, superiority in speed and maintaining of the higher altitude. The keys for victory in air battle are to spot enemy plane first and take offensive and to have better mobility.

a. Horizontal Air Battle:

Horizontal air battle means air battle in which pursuiters pursuit each other moving horizontally. In this battle the point is to maintain the highest speed and pursue the enemy plane turning at the largest possible angle, but three times of successive turning will slow down the speed of a plane, and this deterioration in mobility will expose the plane to enemy pursuit. When pursued, the following escape and counterattack methods are used:

i) To reverse the positions by sending pursuing plane ahead by a sharp turn. When in a position of being pursued the speed is deliberately slowed and the pursuing plane is allowed to draw nearer but immediately before it can aim at the target a sharp turn is performed and the pursuing plane which was pursuing at full speed will be sent ahead by inertia. Ever if it also turns sharply the turning radius will be greater and it will remain ahead. The plane which was being pursued

- 11 CONFIDENTIAL

		then turns to the opposite direction and gets into a position in which it can counterattack the enemy (See Sketch	
			50X1-HUM
	11)	To escape by widening distance through slant loopings. When the speed is slowed after continual horizontal turnings and there is the danger of being caught by the enemy plane the plane being pursued sharply turns in the direction of the emplane, descends, and performs a slant looping. The distance then will be wider, the wider distance is even more widened by another descension, with the speed gained through the desension another rapid upward swing is performed and then either steep spiral ascension is continued or a dive in the opposite direction is performed. The slant looping in the course of this technique belongs to vertical air battle tack (See Sketch	emy
	b. Ve	rtical Air Battle:	•
	pe	rtical air battle means air battle in which loopings are rformed. There are the following several methods of vertical r battle:	
	i)	When a plane finds itself in a disadvantageous position the plane swings rapidly toward the sun to paralyze the enemy plane eye measurement for pursuit and escapes or takes a position of counterattack (See Sketch	50X1-HUM
	ii)	The second method is to use the utmost capacity of the plans and approach the enemy plane from behind by turning at the largest possible angle. In vertical air battle this principles followed through loopings. When there is the danger of being caught by the enemy plane during this type of battle, the distance to the enemy plane is widened through steep spiral or simple ascension as in the case of horizontal air battle mentioned before. The speed of the enemy plane then will be reduced, and a dive is performed to escape from the enemy plane or a position of counterattack is taken.	o l e
3)	Attack	on a Single Bomber by Two Pursuiters:	
	concen same m The tw side, mainta	attack on a single bomber by two pursuiters, firing is trated on the target bomber by the two pursuiters using the ethods as that for one bomber v. one pursuiter engagement. o pursuiters use the attack from above, or the attack from a or the attack from below (See Sketch ining the formation with 75 meter distance, 50 meter space, a 15 meter difference in altitude. Besides the abovementioned	50X1-HUM nd
•		- 1149	
			50X1-HUM

method in which two planes attack at the same time there are alluring attack method and continual attack method, in both of which the two planes attack separately.

a. Alluring Attack:

When two pursuiters discover an enemy bomber they part with each other and one passes by the tail of the bomber at a high speed to arrest the attention of the tail gunner of the bomber while the other attacks from above or a side. In this case the bomber may be shot down without the worry of concentrated fire from 1:

(See Sketch

50X1-HUM

b. Continual Attack:

In continual attack two pursuiters part with each other and attack separately from the sides or above. When the first pursuiter gets into a position of shooting the second pursuiter prepares for getting into an attacking position. If the bomber is not shot down even after the second pursuiter attacked it the first pursuiter will repeat the same attack from the diagonal position (See Sk*tch

50X1-HUM

4) Two Bombers v. Two Pursuiters:

attack from above, attack from a side, and 50X1-HUM attack from below are used. During the attack the two pursuiters attack the two bombers at the same time maintaining their formation with 75 meter distance, 50 meter space, and 10 to 15 meter disparity in altitude. In this formation the leading pursuiter will attack the leading bomber while the file pursuiter will attack the file bomber. The method of escape after the attack is the same as that for attack on a single bomber by a single pursuiter (See Sketch

50X1-HUM

5) Two Pursuiters v. Two Pursuiters:

The tactics for two pursuiters v. two pursuiters is the same as that for one pursuiter v. one pursuiter engagement but each couple of planes maintains their formation and the leading plane is aimed principally at offensive while the file plane is aimed principally at the escort of the leading plane. The details of the formation will be

distance: 150 - 200 meters space: 50 - 75 meters difference in altitude: 10 - 15 meters.

- 12 -

50X1-HUM

CONFIDENTIAL

(This is the basic sparse formation for two planes [See Sketch

50X1-HUM

6) Four Pursuiters v. Four Pursuiters:

There are two types of tactics for four pursuiters v. four pursuiters air battle, namely, counterattack through disengagement from encounter at 180 degrees and counterattack after division into two pairs.

a. Counterattack through Disengagement from Encounter at 180 Degraes:

When a four plane formation is pursued by enemy planes the formation is divided into two pairs and one pair swings upward rapidly and comes down again while the other pair performs a 50X1-HUM sharp horizontal turn. The former pair will counterattack the two enemy planes which were pursuing the former pair (See Sketch Disengagement from Encounter at 180 Degress).

b. Counterattack after Division into Two Pairs:

A four plane formation is divided into two pairs and one pair swings upward and turns down rapidly while the other pair continues horizontal flight. The former pair will counterattack the two enemy planes which are pursuing the pair continuing horizontal flight and the pair continuing horizontal flight will escape from enemy planes; pursuit and counterattack the two enemy planes pursuing the pair which performed the rapid upward swing (See Sketch 50X1-HUM

In addition to the above there are the following general points of air battle: First to attack the enemy plane with the sun at one's back. With the sun at the back the enemy pilot's vision can be hampered thus causing difficulty to his action. Another method is to avail oneself of clouds. When an enemy plane is flying above clouds it can be more easily discovered by flying at an altitude higher than it. And when the enemy plane is flying below clouds it can be easily discovered against the background of the clouds by flying at a lower altitude than it. These techniques are used not only for four pursuiters v. four pursuiters air battle but also for various other types of air battles of fighter planes. The times the NKAF considers as the best for air battle are as follows: 1) morning (utilizing the sun); ii) noon (if pilots have not eaten lunch yet they are regarded as feeling fatigue); iii) evening (utilization of the sun and the fatigue of pilots).

7) Right Pursuiters v. Eight Pursuiters:

In the eight pursuiters v. eight pursuiters air battle usually the eight planes are split up into two plane formations, but under some

CONFIDENTIAL

types of situations two four-plane formations may also be used. In the latter case, however, it is difficult for file planes (led planes) to do quick movements. Tactically speaking, eight planes constitutes a battalion formation. Tactics that can be applied to an eight plane formation is divided into splitting up of the formation and the alluring method.

a. Splitting Up of Formation:

Eight planes may be split up into (two four-plane formations or four two-plane formations and the tactics used are the same as that for each of the formations described before.

b. Alluring Method:

Two planes out of eight are flown at a lower altitude so that they may be easily discovered. Enemy planes then will discover them and begin to pursue them. The remaining six planes then will attack the enemy planes which are pursuing the two planes (See Sketch

50X1-HUM

8) Pursuiter Regiment v. Pursuiter Regiment:

A regiment formation of pursuiters is made up of 24 planes. It is divided into an advance team, a covering team, and a striking team. During the Korean War, regiment formation tactics were tried several times under the leadership of KIM Chi-sang (nta) (a war hero killed during an air accident in 1956 as a deputy division commander with the rank of colonel) but since the Korean Armistice this large formation tactic has been included only in training subjects and no training in it has been actually conducted for the following weak points:

- a. When encountered by a smaller enemy formation the rate of being shot down is higher and this means a greater sacrifice.
- b. With the large formation the planes' mobility is limited during an air battle. Therefore, deployment in one large formation becomes impossible and thus the planes will inevitably split up into smaller formations. And when this happens it cannot be called a regiment formation.
- c. A regiment formation will cover a large space of the air and the radius of action is reduced.

In modern air battles four plane formations (company formation) and eight plane formations (battalion formation) are most commonly used. The lowest combat unit is a single plane but since it lacks cooperation in fire a pair of planes is considered as the lowest unit of cooperation in fire.

•

50X1-HUM

- 14 -

COMPIDENTIAL.

9) Joint Operations with Bombers:

Once each year training in forming covering formations for bombers is conducted. Planes usually used for covering of bombers are MIG-17's. A bomber battalion (nine bombers) is covered by 20 fighters (five companies) and a bomber company (three bombers) is covered by 10 fighters (three companies) (See Sketch

50X1-HUM 50X1-HUM

For a sally of bombers, usually a bomber battalion is used. The bombers will maintain a close formation and the covering planes will be divided into an advance team, a covering team, and a striking team.

a. Advance Team:

Advance team means a four plane company performing the vanguari's role at 15 to 20 kilometers ahead of the bombers. The four planes are responsible for repulsing enemy planes attempting an attack. The covering team or the striking team cannot leave their respective fixed positions to support the advance team.

b. Covering Team:

Covering team maintains the same altitude as the bombers and one to 1.5 kilometer space from the bombers and covers the bombers physically. Covering team planes repulse only those enemy planes which attempt to attack the bombers, maintaining their positions. If an air battle occurs, however, their locations may be changed in the course of battle but they will not leave their original positions too far.

c. Striking Team:

Striking team is a rear guard force which is responsible for defense against enemy planes attacking from the rear. Striking team planes may move about within about one kilometer from their fixed positions but may not pursuit escaping enemy planes.

A mixed formation of bombers and fighters will perform an air battle with the authority to command the whole mixed formation in the hand of the bomber formation leader and the covering planes are required to perform their covering mission even at the cost of being shot down. If the covering planes neglect their primary mission and return to their base leaving the bombers behind the officer leading the covering planes will be punished in accordance with the judgement of the military tribunal.

10) Duel of Pursuiters at Night:

As Source heard, for a duel of pursuiters at night, ground control

-15 -

interception was used. In some cases even firing is controlled by the ground control but usually the intercepting plane is led into the shooting range and the pilot shoots his enemy plane with the aid of a radar sight. There is no other way of intercepting but that by ground control at night. Unlike the daytime, looping the NKAF had 50X1-HUM or turning is impossible at night. three battalions of MIG-17 PF's for nighttime interception.

11) Hunter Team Tactics:

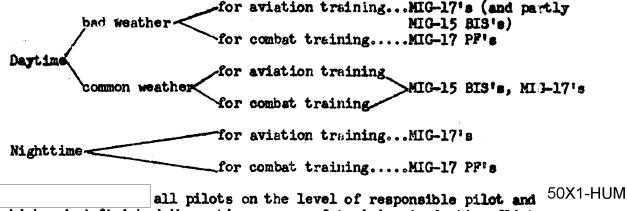
A plane using this tactics will fly deeply into the air battle area without a definite destination or direction and attack enemy planes which it discovers in the course of its random flight. Its targets are: fighters returning to their bases after performing their missions; bombers returning without covering planes after performing their air bombing missions; and transport planes which are performing transportation missions without covering planes in the rear area. In order to discover such targets as were mentioned 50X1-HUM above it will fly at random keeping the following things in mind

Note: The original report says, without paying attention to the following matters", which in Korean script means only one letter. It appears to the editor that the writer of the original report meant the opposite thing as is given in the above translation.): to avoid air battle as much as possible; not to continue an air battle too long if it was inevitably involved in one; not to stay in one aerial area too long; not to enter the shooting range of an anti-aircraft artillery position. In this hunter team tactic a limited number of pilots are trained. A famous living figure in this tactic, which was frequently used during the Korean War, is War Hero KANG Chong-tok (nta), the commander of the 56th Regiment of the 2nd NKAF Division and a lieutenant colonel. Training in this tactic is conducted chiefly for those who have experience in actual battle for the primary purpose of polishing up their aviation techniques and at the same time for test flight for aerial surveil ance.

12) Ground Control Interception Tactics:

The types of radar the NKAF possesses are P-E and P-20. For ground control interception P-20 type is used. Training in GCI tactics is conducted by each AF division and the Air Force Headquarters supervises the training. Planes used for the training are MIG-15's, MIG-15 BIS's, MIG-17's, MIG-17 PF's, and IL-28's, but MIG-17 PF's are most frequently used. The NKAF conducts GCI training for: air interception (for all types of aircraft but with a stronger emphasis on MIG-17 PF's); flight for training in aviation techniques; emergancy flight of alert planes of the day by an early alert. The types of planes used for specific purposes and conditions are as follows:

> = 16 -CONFIDENTIAL



all pilots on the level of responsible pilot and higher had finished the entire course of training in daytime flight under bad weather conditions (with clouds from 300 meters altitude but excluding thunderstorm) and they were to be trained 50X1-HUM in nighttime aviation techniques using MIG-15 BIS's as well as MIG-17's, so that all the pilots might be able to perform the duty as the daytime combat pilot when all-weather planes are imported.

a. Air Interception:

For air interception two formations will be sent out under the guidance of two kinds of radar. Training in air interception is conducted both in common and bad weather. For actual GCI battle only MIG-17 PF's will be used, but for training in discovering enemy planes by ground control MIG-15 BIS's and MI-17's are used.

b. Aviation Technique Flight:

Aviation technique training is continued day and night using MIG-17's. For common weather during the daytime MIG-15 MIS's are also used. For flight training definite courses are decided beforehand and radar supervises their flight correcting their courses if necessary.

c. Emergency Flight by Early Alert:

In an emergency flight by an early alert, alert planes of the day are led by ground control before they meet enemy planes.

all the pilots assigned to MIG-15 BIS's, 50X1-HUM MIG-17's, and MIG-17 PF's (used only at night) which were used for GCI were capable of combat by GCI. The radars used by the NKAF for GCI can accurately locate altitude, speed, and location, and detect types and numbers of enemy planes relatively accurately.

- 17 -

COMPIDINTIAL

13) New Tactical Changes Resulting from Development of New Weapons:

There awas no tactical change resulting from development of new weapons in the NKAF but the following suggestions were given:

a. Attack on Aircraft Carrying Atomic Weapons:

One of Korea's geographical data being that the crosswise depth of combat area is narrow it was emphasized that aircraft which were obviously carrying atomic weapons or might be considered as carrying them must be shot down in the first stage interception even if it required body collision tactics. For this purpose the NKAF personnel are given such spiritual training as was given to the Japanese Kamikaze force.

b. Possibility of Air-to-Air Missile Equipment:

in the course of ground training of the NKAF chiefly the Aviation Regiment Deputy Commander and the Regiment Firing Chief referred to the possibility of the equipment with weapons enabling to fire at 90 degrees. When they would be put to use was not mentioned

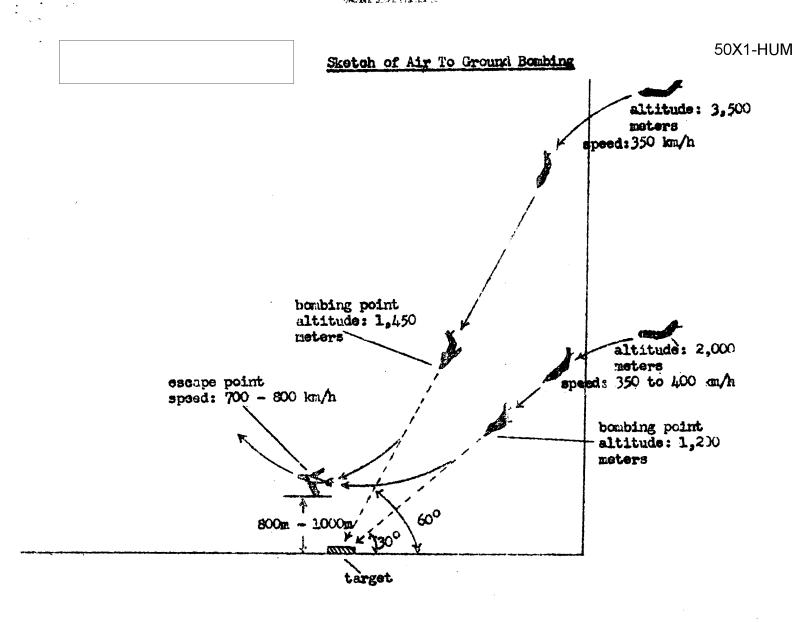
50X1-HUM

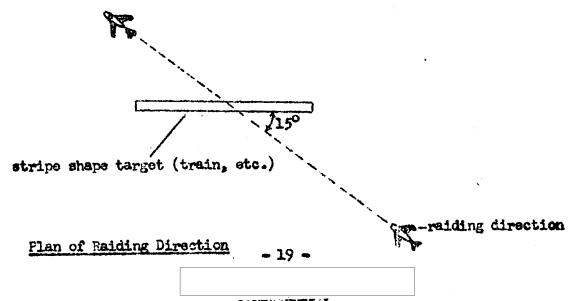
50X1-HUM

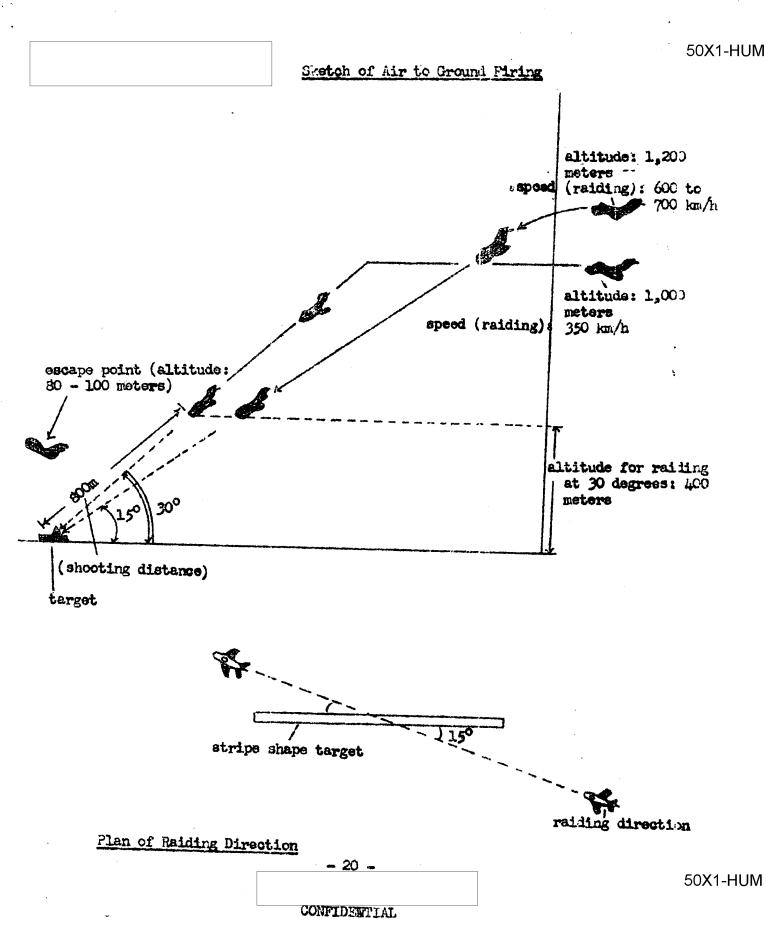
As a general trend of the NKAF, data about new type weapons are regarded as a top secret but since the pilots are overtly given theoretical training about such weapons there is a strong possibility that such weapons are in the possession of the NKAF. Specifically speaking, the firearms enabling fire at 90 degrees means air-to-sir missile.

5. Cooperation Tactics: When the NKAF referred to cooperation tactics, it meant cooperation tactics between the ground forces and the navy. As of August 1960 there existed no special operations tactics for cooperation. The only type of cooperation was to attack a designated target at a designated time in support of a ground force. Training especially conducted in this connection was only air to ground attack. Training in attack over the sea does not involve cooperation with the naval forces but was regarded as part of defense against attack from the sea. Training in joint operations with the ground forces was conducted once a year for about two to three hours.

18 ...



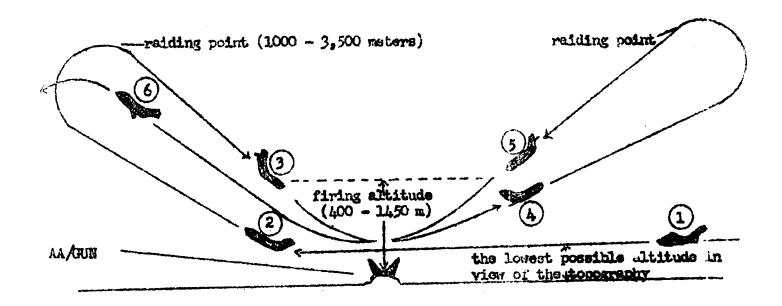




CONFIDERAL

Skotch of Anti-eiroraft Artillery Position

50X1-HUM



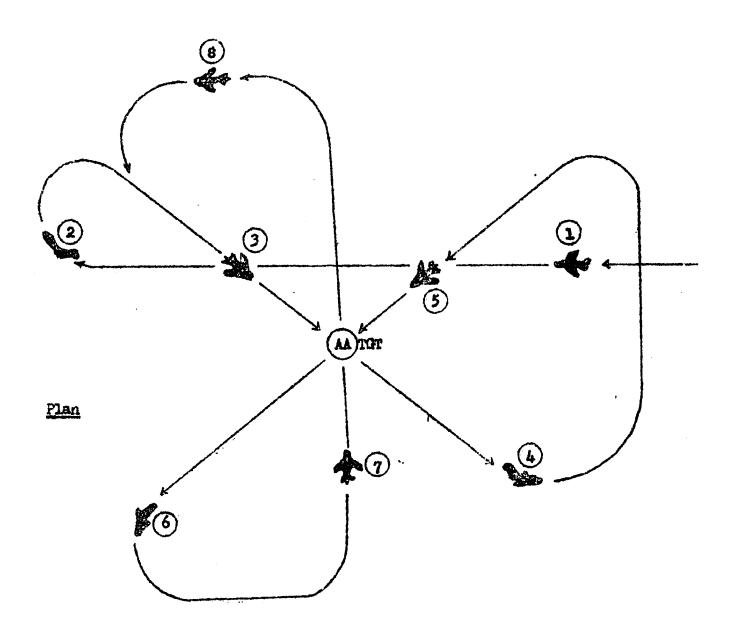
Side View

- 1. Raid at the lowest possible altitude the topograph allows.
- 2. Confirm an AAA position and climb up to a raiding altitude.
- 3. Fire or bomb at the altitudes for air to ground firing and bombing (1,000 - 1,450 meters) (see Sketch Attachment No. 18-2 and 18-3).
- 4. Climb to reraiding point (400 to 3,500 meters)
- Same action as (3) above.
 Same action as (4) above.
 Same action as (3) above.

- 8. Return to the point of (2) and repeat the raiding method of (2)

50X1-HUM

Sketch of Anti-aircraft Artillery Position



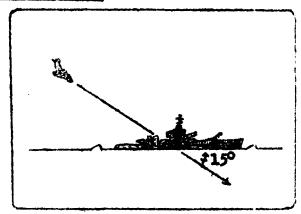
- 22 --

CONFIDENTIAL

50X1-HUM

Sketch of Attack Over the Sea

Sketch of Diving (at 30 and 60 degrees) Attack (disengage after one time of attack)



altitude: 2,000 - 3,500 meters

bombing point (may be different by the raiding angle of air-to-ground attack): 1,200 - 1,000 meters

多00m - 1000m

Sketch of

Ultru Low Altitude (50 moters) Horizontal Attack

(disengage after one time of attack)

Dive outside the 'ahooting range of vessel

escape by horizontal flight from the shooting range of vessel

maximum speed

raiding by horizontal flight

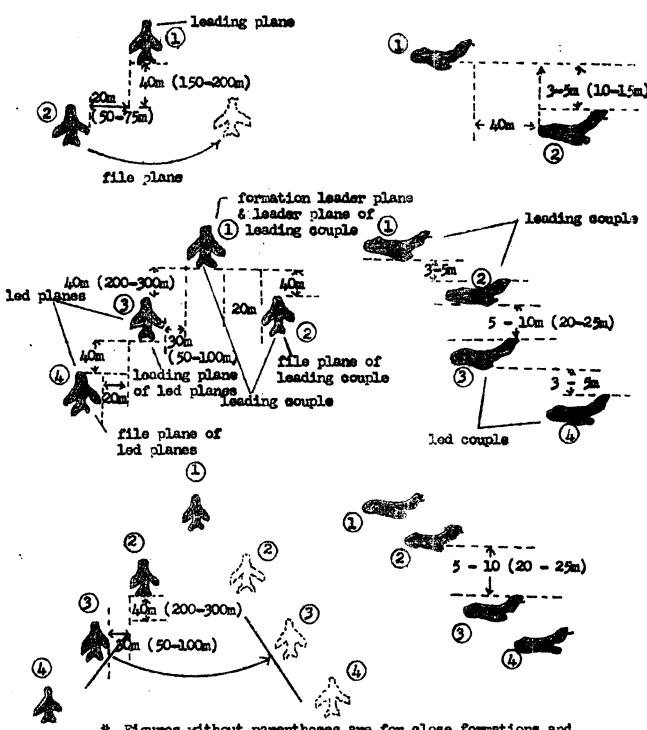
Attacking plane raid in the same direction as the target on vessel regardless of course of vessel

~ 23 ~

MINTANIANTTAL

50X1-HUM

Sketch of Formations (1)

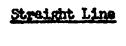


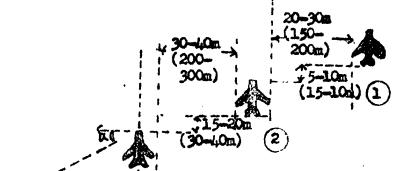
Figures without parentheses are for close formations and those with parentheses are for sparse formations

- 24 -

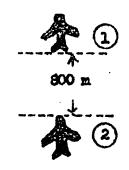
50X1-HUM

Sketch of Formations (II)





(3) (4) Then is 15 degrees or narrows: the formation is in a straight line, and when (a) is wider than 15 degrees the formation is in an echelon shape.



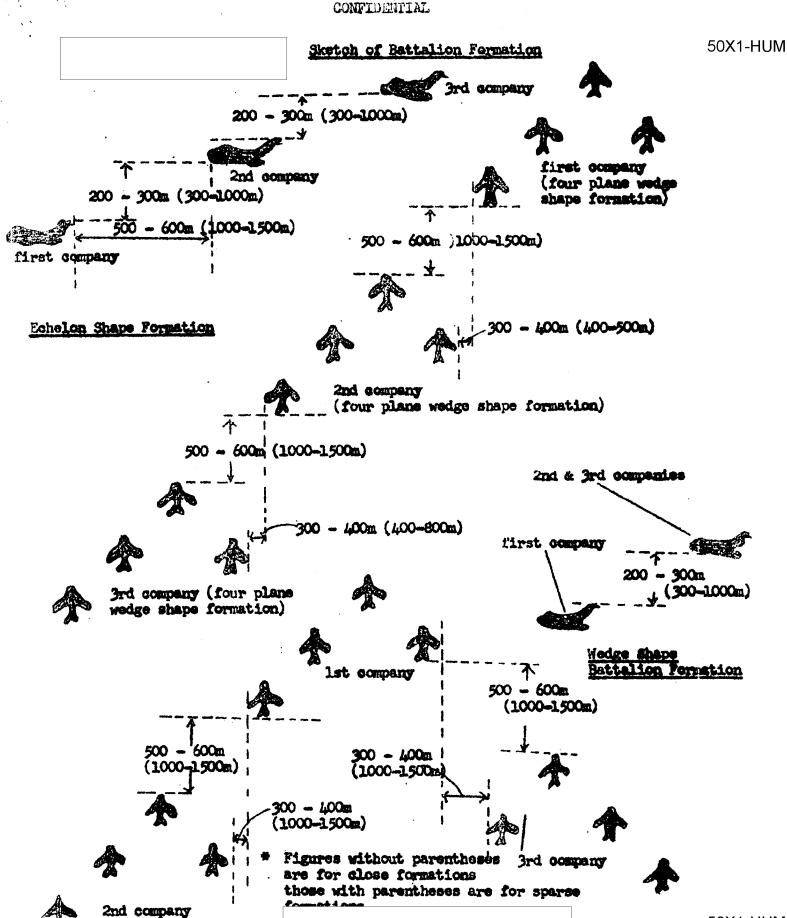
Column



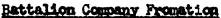


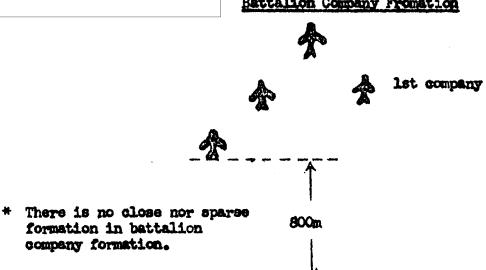
* Figures without parentheses are for close formations and those with parentheses are for sparse formations.

_ 25 _



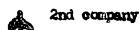
50X1-HUM

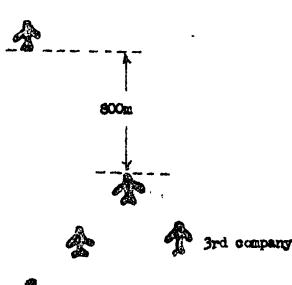




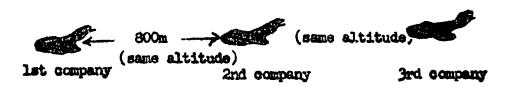
This shows the formation for simultaneous attack by company unit and continual attack by the whole battalion.



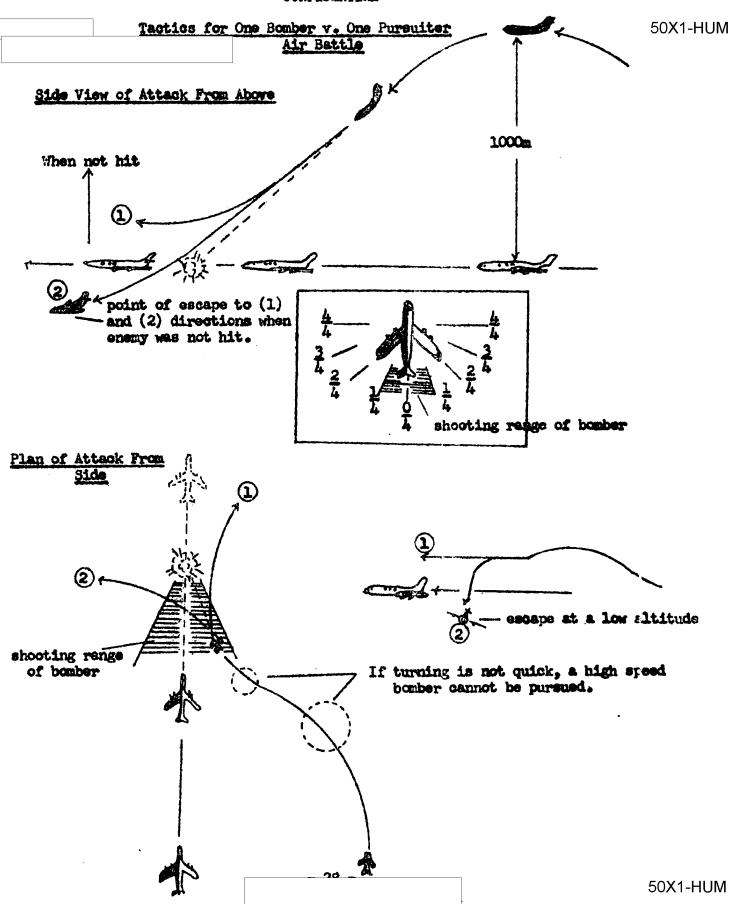








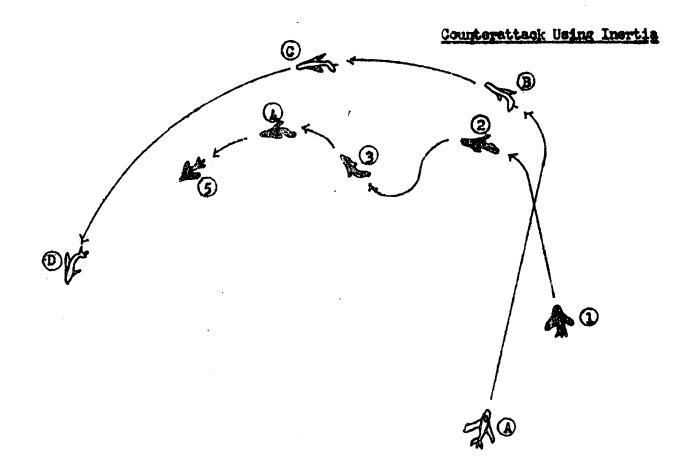
CONFIDENTIAL



CONFIDENTIAL
Sanitized Copy Approved for Release 2011/10/17 : CIA-RDP80T00246A058300040001-0

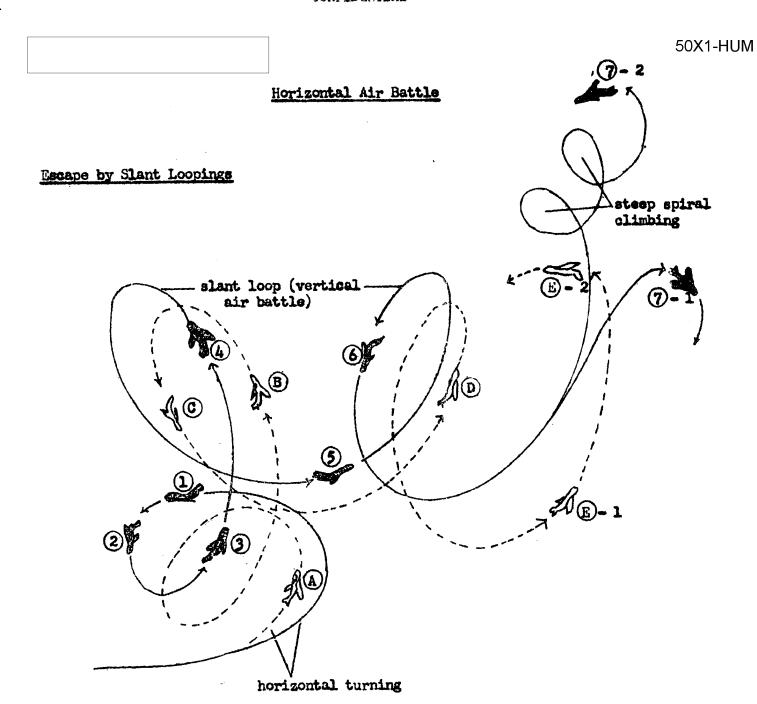
50X1-HUM

Horigontal Air Battle



- 29 -

CONFIDENTIAL



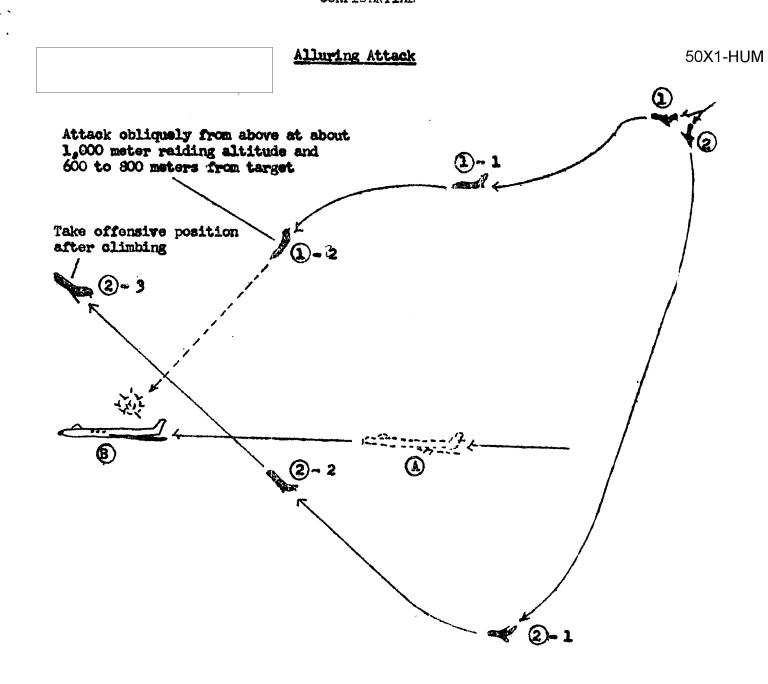
- 30 -

CONFIDENTIAL

50X1-HUM

CONFIDENTIAL

Escape By Heading Toward Sun steep spiral climbing SUD 7 looping air battle (vertical air battle) CONFIDENTIAL

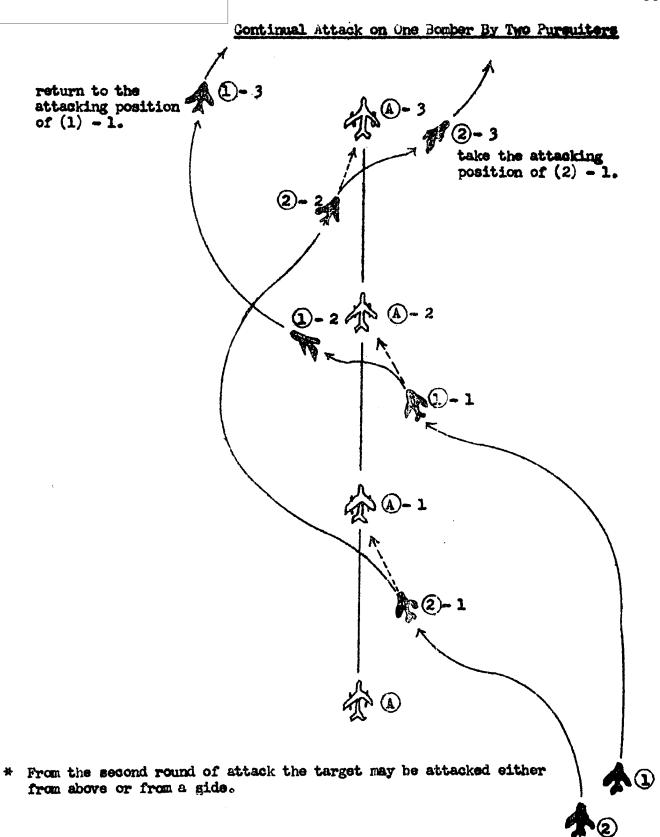


- 32 -

50X1-HUM

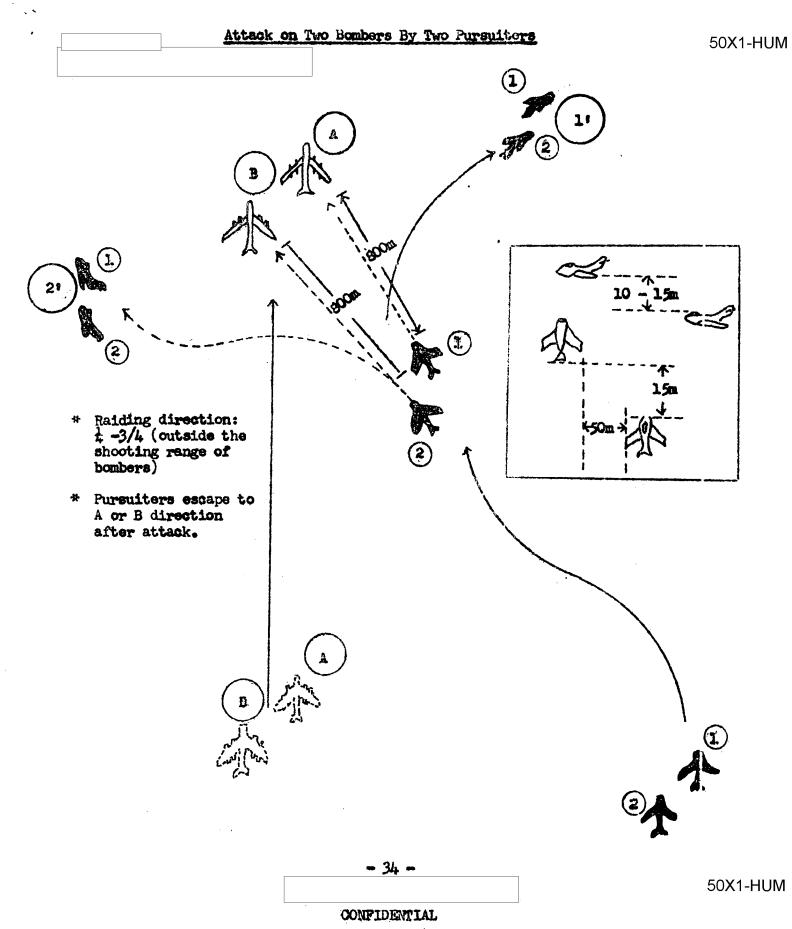
CONFIDENTIAL

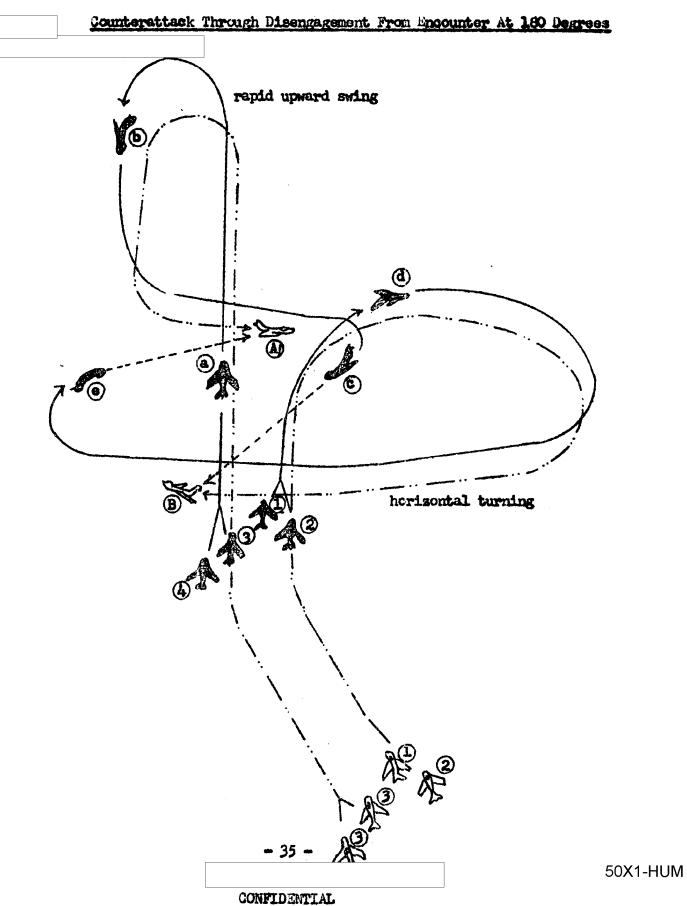
50X1-HUM



- 33 -

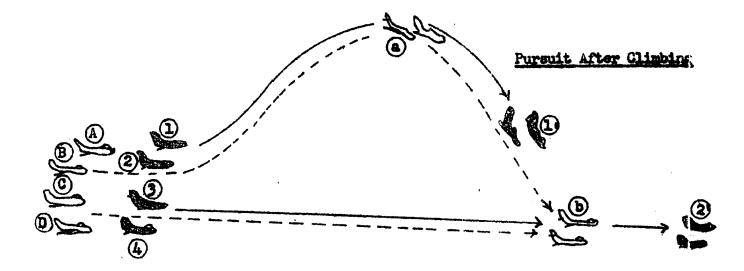
CONFIDENTIAL





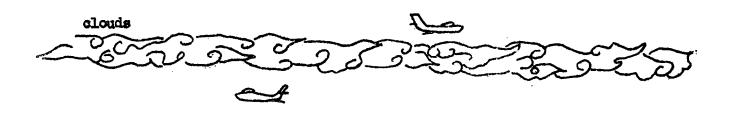
50X1-HUM

Tactics for Four v. Four Air Battle



Altitudes Above & Below Clouds

higher than enemy plane



lower than enemy plane

50X1-HUM

30 -

CONFIDENTIAL

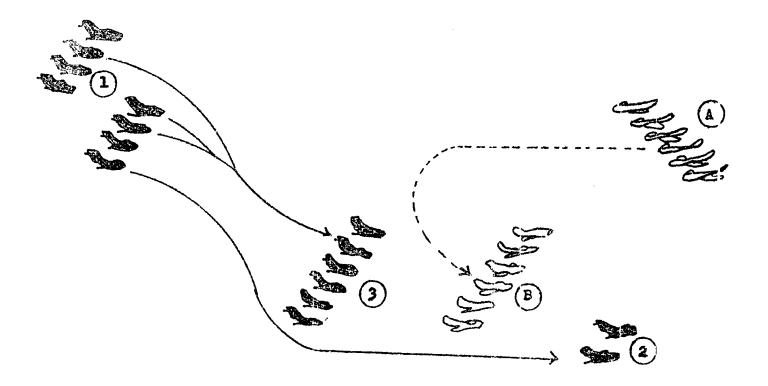
50X1	-HUN
------	------

Sanitized Copy Approved for Release 2011/10/17 : CIA-RDP80T00246A058300040001-0

CONFIDENTIAL

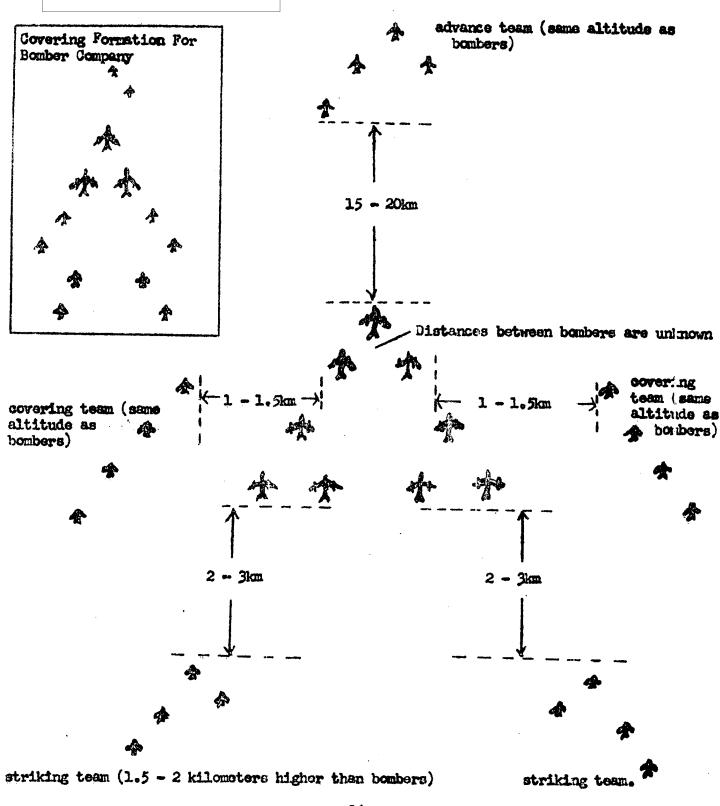
50X1-HUM

Alluring Tactics



- 37 --

Covering Formation For Bomber Battalion



- 38 -

CONFIDENTIAL